Some Comments on the *Phasis wallengrenii* (Trimen)* group (Lepidoptera : Lycaenidae), with a description of a new species

By C. G. C. Dickson

Although it clearly contains a number of distinct taxa this group has been largely neglected since Trimen discovered, on hills near Stellenbosch in December, 1862, the only member of the complex which, up to the present, had been named—i.e., apart from Trimen's own description under, "Var. A.," of another, widespread insect of this group and his drawing attention to some further variation which he had noticed within the group.

The present writer has failed, so far, to rediscover *Phasis wallengrenii* near Stellenbosch (and there is a possibility of its no longer existing there owing to the great changes which have taken place in the surrounding country since Trimen's time), but specimens which appeared to come fairly close to the original ones were encountered on a hillside near Mamre as long ago as 1936 (i.e., on 5th November of that year). This colony was restricted to an extremely small piece of ground. Twenty-seven years later, and after much intensive searching, the same insect was found on some neighbouring hills—in fair numbers and extending somewhat brokenly along a narrow strip of country of about a mile in length. On 14th December 1949, a rather different representative of the group, with generally heavier, dark upperside markings, was found to occur on the Piquetberg Mountain (this insect also having generally, though less pronouncedly, thin silvery markings on the underside, but usually of a white shade, as against the often more golden tint of those of Mamre specimens). Within its own restricted area, the butterfly is fairly numerous in this locality. Trimen's description of *Ph. wallengrenii* and the coloured figure of what was in fact this insect in his 1866 work, Rhopalocera Africae Australis" (Pt. II, Pl. 5, fig. 3), would lead one to believe that the light underside markings of the original insect were pure silvery-white, without any golden tint.†

When examples from the Karroo tracts and Little Namaqualand are compared with nominate *Ph. wallengrenii* the difference is found to be so pronounced—particularly as regards the silvery markings of the underside—as to indicate a specific difference and there would appear to be good grounds for believing that at least two or three additional sub-species occur in the Cape Province. Judging by specimens which have been studied, those from mountainous localities have a general tendency to be more darkly marked on the upperside than ones from the lower ground, a case in point being a population which was found at an altitude of some 6,000 ft. in the Nieuwveld Mountains, near Beaufort West, but this has applied also to Piquetberg specimens.

The representative of the group which has been found to frequent

**Zeritis wallengrenii* Trimen, South African Butterflies, Vol. II, pp. 192-194 (1887).

†Trimen's type series of *wallengrenii* is in the British Museum (Natural History). Careful examination reveals that the underside markings are basically metallic silver, and that only in certain lights a slightly golden tinge may be imparted by the surrounding rufous-brown ground colour.—G. E. T.

much of the Southern and, further inland, Western portions of the Karroo (and which also penetrates some of the adjoining country) exhibits characteristic features which, although showing some variation, enable this insect to be recognised readily as a distinct entity. Trimen's description of "Var. A." seems in large measure to fit this insect—if not in all respects. As this butterfly is possibly the most widespread member of the group, it is the one which is being described in the present paper.

Phasis argyroplaga sp. nov.

Differences between this insect and *Phasis wallengrenii* (Trimen) are noted hereunder.

Male. Upperside.

Forewing. Not very different from that of *wallengrenii* (in the holotype there is more dark scaling along area 1b, longitudinally, than is often the case in the present species).

Hindwing. Dark basal suffusion usually much reduced or in some specimens almost absent. If present, the black streak running downwards from inner portion of the large apical patch commences further from margin and thus encloses (or partially encloses) a broader but more wedge-shaped strip of the tawny-orange ground-colour than is usual in *wallengrenii.* In the holotype, this character is only partially represented by a short black streak near the anal angle. Projection at the end of vein 2 reduced and but very slight in present species.

Underside.

Forewing. Inner half of costa from base more prominently light-edged (i.e., with silvery-white). Subapical area greyish- or almost blackish-brown (this colouring also extending along costal region and narrowly also along termen). The larger silvery markings which occur in the subapical area in *wallengrenii,* enlarged considerably in the present species—the two in areas 6-7 being much broader in proportion to their length; the submarginal silvery-white markings as a whole somewhat thickened and the white spaces in the cilia themselves more conspicuous than in *wallengrenii.* Sub-marginal dark markings below vein 4 virtually united and forming a well-defined almost black streak.

Hindwing Ground-colour greyish—or almost blackish-brown (the shade varying somewhat in different specimens), with but little lighter variegation, and the veining as a whole not or only partially lighter than the background. The silvery-white markings nearly all noticeably enlarged or thickened. (The development of the light markings in all wings is well exemplified in the holotype.)

Length of forewing: 14·5-17·5 mm. (16.5 mm., in holotype.)

Female. Upperside.

Very similar on the whole to that of *wallengrenii* and with the dark pattern varying considerably in detail in different specimens.

Hindwing. Inner edge of dark marginal border, as in the male, more even than in *wallengrenii,* but the border well curved in conformity with the different wing-shape of the female. Projection at the end of vein 2 comparatively slight—not prominent as in *wallengrenii.*

Underside.

Forewing. The subapical area usually less dark than in the male and approaching more the tone of that of *wallengrenii;* strip between the

margin and the dark submarginal markings broader than in the male, usually lighter and more as in *wallengrenii;* the dark submarginal marking often but not always more in the form of separate spots, than in the male. Enlargement of the sub-apical silvery-white markings on the whole rather less pronounced than in the male, but the light divisions of the cilia about equally prominent.

Hindwing. Ground-colour usually lighter than in the male and with the veining and some other portions more or less of an ochreous-fawn tint and more reminiscent of the corresponding parts in *wallengrenii.* Enlargement or thickening of most of the silvery-white markings as in the male, but in some females not quite as pronounced; white divisions of cilia generally prominent, or fairly so.

Length of forewing: 17-20 mm. (about 18 mm., in allotype). (One abnormally small female has a forewing length of only 14 mm.)

In both sexes the underside of the body, palpi beneath and the legs are more silvery-white than in *wallengrenii.*

♂ Holotype, WESTERN CAPE PROVINCE: Karroo hills (western portion of Wagenbooms Bergen) between Matroosberg (formerly Triangle) Railway Station and Eendracht, 13.xi.1966 (C. G. C. Dickson); British Museum Reg. No. Rh. 18612.

♀ Allotype, W. CAPE PROVINCE: Koelefontein Hills, between Worcester and Robertson, 28.x.1937 (C. G. C. Dickson); British Museum Reg. No. Rh. 18613.

Paratypes presented to British Museum (Natural History), W. CAPE PROVINCE: N.E. of Matroosberg Rly. Stn., 16.xi.1962 (C.G.C.D.), 1 ♂, 1 ♀; 13.xii.1962 (C.G.C.D.), 1♂.

Paratypes in author's collection (and collected by himself), W. CAPE PROVINCE: as allotype, 1 ♀; Roodebery, near Vink, 12.x.1950, 1 ♂; Karbonaatjes Kraal (beyond top of Hex River Pass), 16.xi.1962, 1 ♀; between Matroosberg Rly. Stn. and Tafelberg, 14.xii.1948, 1 ♀; N.E. of Matrooseberg Rly. Stn., 6.xi.1966, 1 ♀; S. of foot of Koo Pass, 8.xi.1962, 1 ♀; Wagenbooms Bergen foothills, N. of Montagu, 12.xi.1962, 1 ♂, 1 ♀ nr. Oudtshoorn 28-29.x.1949, 2 ♂ ♂.

Paratypes in coll. C. W. Wykeham (and collected by himself), W. CAPE PROVINCE: Koelefontein, 21.x.1962, 2 ♂♂, 1♀; Nougas Hills (Western Karroo) 13.xi.1966, 1 ♂; Montagu, 11-15.xi.1962, 26 ♂♂, 9 ♀♀; Langeberg, 15.xi.1962. 1 ♂.

Paratypes in Coll. Transvaal Museum (all collected by Dr. G. van Son). W. CAPE PROVINCE: Boskloof, Worcester, x.1961, 1 ♂; Montagu x.1941, 1 ♂, 1 ♀; Matjesfontein, 20.x.1941, 1 ♂, 18.x.1954, 1 ♂, 1 ♀; Grootvadersbos (E. of Swellendam), 1-6.xi.1940, 1 ♀; Seven Weeks Poort, xi.1940, 1 ♀; Nr. Meirings Poort, 23.x.1954, 1 ♂.**

Some specimens of both sexes from the Roode Zands Mountains, above Tulbagh Kloof (A. J. H. Duke, 16.xii.1948), which are considered to represent a variation of *argyroplaga* are on the whole more darkly marked than usual on the upperside and the silvery markings of the underside are not, in all of them, all quite as enlarged or thickened as in many of

**Other Transvaal Museum specimens seen and considered to be conspecific with *Ph. argyroplaga* but not included as paratypes: Glenconnor, C. P. (*Gowan C. Clark*), 26.x.1942, 1 ♂, 16.x.1942, 1 ♀; Naroega Pass, C. P., 29.x.1948 (*G. van Son*), 1 ♀.

the Karroo specimens of this species. The forewings tend to be a little less elongated and the average size of these specimens is below that of most examples of *argyroplaga*—although some of them are of normal size. It is interesting that this colony should have been found some thirty miles from (and W.N.W. of) the nearest country of Karroo type. Representatives of this butterfly have been given to the British Museum. Somewhat similar specimens of both sexes which were darker than usual on the upperside were taken on the Stettyns Berg (at an altitude of about 2,000 ft. above sea-level), above Brand Vlei, on 20th November, 1965; and a pair of these specimens are now in the collection of the British Museum.

The late Dr. G. van Son did some preliminary investigation on the *Ph. wallengrenii* group and realised that the valves of the male genitalia showed some difference in various members of the group. He had apparently chosen and intended to use the name *argyroplaga*, eventually, for the present insect.

This very beautiful butterfly may often be found in good numbers in the places which suit it particularly; in November 1965 it was especially plentiful on a gravel road to the north of Montagu, on the way to the Wagenbooms Bergen. The writer himself first observed it near Montagu Baths, half a century ago. It has a very quick flight, close to the ground, but flies only for short distances as a rule and, after settling abruptly, keeps its wings closed—with the striking silvery markings visible. This applies particularly to the male. Specimens may, however, be observed feeding at flowers, and they are very partial to the yellow flowers of a Composite shrub which is of frequent occurrence in the Karroo. Individual specimens generally remain within a circumscribed area of the veld. The author's own captures have been made from fairly early in October to the middle of December, but November is perhaps the best month for this butterfly.

Young larvae of the *Phasis wallengrenii* group have failed to survive on plants on which eggs have been laid and it is concluded that the early stages are likely to be wholly dependent on ants.

An additional note by Trimen on a member of this complex is given in "South African Butterflies", Vol. III, p. 416 (1889). Swanepoel includes some good observations in his "Butterflies of South Africa", p. 125 and Pl. vi, figs. 5-6 (1953)—the specimens which are figured apparently representing the newly-described *Ph. argyroplaga;* while Murray gives a description of *Ph. wallengrenii* (Trim.) in "South African Butterflies: A Monograph of the Family Lycaenidae", pp. 114-115 (1935)—but the insect illustrated in Fig. 62 apparently corresponds to *Ph. argyroplaga* and represents this latter species.

The author's sincere thanks are due to Mr. G. E. Tite who has most obligingly perused this paper before its publication. Dr. Vári has kindly made available for examination Transvaal Museum material of the group concerned.

"Blencathra", Cambridge Avenue, St. Michael's Estate, Cape Town.

HERSE CONVOLVULI L. IN NORTHAMPTONSHIRE.—A male convolvulus hawk moth was brought to me on the 5th September. It was dead, but had been a very fresh specimen in fine condition I passed this on to the Area Recorder, Mr. Peter Gent. — J. H. PAYNE, 10 Ranelagh Road, Wellingborough, Northants. 30.ix.1967.